

REMARKS

Reconsideration and allowance of the claims pending in the application are requested.

Claims 18-43 are pending in the application.

- 1) Claims 18-43 have been objected to due to informalities.
- 2) Claims 24, 32 and 39 have been rejected under 35 USC 112, first paragraph as failing to comply with the enablement requirement.
- 3) Claims 20-22, 28-30 and 36-38 have been rejected under 35 USC 112, second paragraph as being incomplete for omitting essential elements, amounting to a gap between the elements.
- 4) Claim 33 has been rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 5) Claims 25, 26, 28, 33 and 40-42 have been rejected under 35 USC 103(a) as being unpatentable over USP 5,056,109 to Gilhousen, issued October 8, 1991, filed November 7, 1989 (hereafter, "Gilhousen"), in view of USP 6,744,808 to Walley et al., issued June 1, 2004, filed June 3, 2004 (hereafter, "Walley").
- 6) Claims 43, 18 and 20 have been rejected under 35 USC 103(a) as being unpatentable over Gilhousen in view of Walley, and in further view of USP 6,944,206 to Dent, issued September 13, 2005, filed November 20, 2000. (hereafter, "Dent").

Claims 34 and 35 are indicated to contain allowable subject matter over the prior art of record.

Applicants have amended claims to overcome the rejections under 35 USC First and Second Paragraphs and distinguished the claims from the cited art to overcome the rejection under 35USC 103 (a).

Turning now to the rejections, Applicants respond to the indicated Paragraphs of the subject Office Action, as follows:

Paragraph 1-3:

Applicants notes the comments, and believe a reply is not necessary.

Paragraph 4:

Applicants have amended the claims in the manner suggested by the Examiner and believe the rejections under 35 USC 112, First Paragraph have been overcome. Withdrawal of the rejections under 35 USC First Paragraph is requested.

Paragraph 5:

Applicants have amended the claims in the manner suggested by the Examiner and believe the rejections under 35 USC 112, Second Paragraph have been overcome. Withdrawal of the rejections under 35 USC Second Paragraph is requested.

Paragraph 6:

Applicants have amended claims 18-43 in the manner suggested by the Examiner and believe the objections to claims 18-43 have been overcome. Withdrawal of the objection to Claims 18-43 is requested.

Paragraphs 7/8:

Claims 24, 32 and 39 have been amended to overcome the rejection under 35 USC 112 First Paragraph, as follows:

(i) Claim 24, 32 and 39 have been amended to delete PN code length and substitute correlator value for comparison to a threshold.

Withdrawal of the rejection of Claims 24, 32 and 39 under 35 USC 112, First Paragraph is requested.

Paragraphs 9/10:

Claims 20-22 have been amended to overcome the rejection under 35 USC 112, Second Paragraph, as follows:

(i) Claims 20-22 have been amended to depend upon claim 18 to supply the omitted elements of the claims

Withdrawal of the rejection of Claims 20-22 under 35 USC 112, Second Paragraph is requested.

Paragraph 11:

Claims 28-30 have been amended to overcome the rejection under 35 USC 112, Second Paragraph, as follows:

(i) Claims 28-30 have been amended to depend upon claim 26 to supply the omitted elements of the claims.

Withdrawal of the rejection of Claims 28-30 under 35 USC 112, Second Paragraph is requested.

Paragraph 12:

Claim 33 has been amended to differentiate steps (d) and (f), and (e) and (i), as follows:

(i) Step (f) has been distinguished from step (d) by amending step (f) to recite -- a communication channel “includes a channel noise signal”, whereby step (f) further describes step (d).

(ii) Step (i) has been distinguished from step (e) by amending step (i) to limit step (i) to a correlator value above a threshold.

Withdrawal of the rejection of Claim 33 under 35 USC 112, Second Paragraph is requested.

Paragraph 13:

Claims 36-38 have been amended to overcome the rejection under 35 USC 112, Second Paragraph, as follows

(i) Claims 36-38 have been amended to depend upon claim 35 to supply the omitted elements of the claims.

Withdrawal of the rejection of Claims 36-38 under 35 USC 112, Second Paragraph is requested.

Paragraphs 14/15:

Claims 25, 26, 28, 33 and 40-42 include features not disclosed, suggested or taught in Gilhousen in view of Walley and the rejection under 35 USC 103 (a) fails for lack of support in the cited art, as follows:

1. Claim 25:

(i) “determining a correlator value via a power detector for determining a correlator value for each of the frequencies of the communication channel from the extracted PN code, where the correlator value is a measure of attenuation loss of the communication channel.”

Gilhousen at col. 16 lines 9-51 discloses the output of the correlator is provided to a Hadamard transform digital filter for filtering. The filter output is provided to a user decoder

circuit, which provides the transform output to a power averaging circuit. A signal indicative of each average power level is provided to a comparator. A power level set signal is provided to the comparator. A power command generator transmits a signal which raises or lowers the power level of a mobile unit.

In contrast, applicants at page 8, line 20 continuing to page 9, line 4, disclose when the received and generated signals are in synchronization, the input data input signal can be captured at terminal 330. A power detector 322 determines the signal level for measuring the signal level of the output signal and compares the measured signal level to a threshold value based upon experience of reliable transmission of data through the channel. If the correlation value is above the threshold, reliable transmission is occurring through the channel. If the correlation (correlation) value is below the threshold, an indication is given of unreliable transmission through the channel.

Gilhousen averages the largest power transform over an interval to adjust the power level on a channel, and fails to disclose measuring the correlation values against a threshold for determining the quality of communication on a channel. Walley describes increasing data transmission rate on a spread spectrum systems and does not supply the missing feature in Gilhousen.

The rejection of claim 25 under 35 USC 103 (a) based on Gilhousen, in view of Walley, is without support in the cited art.

In any case, claim 25 includes the features of claim 34 relating to (a) the transmitter carrier frequency being varied among a plurality of predetermined carrier frequencies and b) a correlator value for each of the frequencies is used to find the attenuation loss of the communication channel. Gilhousen and Walley do not describe or suggest the claimed feature. Claim 25 is patentable on the same basis as claim 34.

Withdrawal of the rejection under 35 USC 103 (a) and allowance of claim 25 are requested.

2. Claim 26:

(i) “selecting a Signal to Noise Ratio via the power detector as a threshold for reliable communication in the communication channel;”

Gilhousen selects a power level, which is not equivalent to selecting a signal to noise ratio. Gilhousen is concerned with the correct power level so that interference between adjacent channels is not a problem. Applicant is concerned with the correct signal to noise ratio for quality of communication.

(ii) “determining if the correlation value is above or below the threshold via the power detector, where a correlation value below the threshold is indicative of unreliable transmission through the communication channel.”

Gilhousen at column 16, lines 25 – 40, discloses a comparator compares a power set signal and a signal indicative the average power level in a channel and provides an output of the deviation of the average power level from the desired power level. The comparator output causes a command generator to generate a command to power up or power down a mobile unit.

In contrast, applicants disclose the correlation values provides an indication of the signal to noise ratio of the channel. Based on the signal to noise ratio of the channel, feedback can be supplied to the transmitter for adjustments to the chip rate, length of PN code and carrier frequency for improving the quality and reliability of the communication.

Gilhousen compares power level of a channel to a set channel power raising or lowering the power level on a channel and fails to disclose, suggest or teach comparing a correlation value to a threshold as an indication of reliable or unreliable transmission in a communication channel.

The Examiner has not pointed out, nor can applicants find any support in Walley, for the missing feature in Gilhousen

The rejection of claim 26 under 35 USC 103 (a) based on Gilhousen, in view of Walley, is without support in the cited art. In any case claim 26 depends from claim 25 and is patentable on the same basis as claim 25

Withdrawal of the rejection under 35 USC 103 (a) and allowance of claim 25 are requested.

3. Claim 28

Claim 28 depends from claim 25 and is patentable on the same basis as claim 25.

4. Claim 33:

(i) “wherein the step of providing the PN coded data signal to the correlator via the communication channel includes a channel noise signal for determining transmission characteristics of the communication channel;”

Gilhousen at col. 5, lines 5-65, describes measuring power loss in a channel to adjust signal power, and does not describe including noise in a channel for determining transmission characteristics of a channel.

Gilhousen at col. 6, line 62 continuing to col. 7, line 6 describes the cell site transmitting commands to the mobile unit according to the measured strength of the signal received from the mobile unit. Gilhousen does not describe including noise in a channel for determining transmission characteristics of a channel.

The Examiner has not pointed out nor can applicants find any support in Walley for the missing feature in Gilhousen

The rejection of claim 33 under 35 USC 103 (a) based on Gilhousen in view of Walley is without support in the cited art. In any case claim 26 depends from claim 25 and is patentable on the same basis as claim 25.

Withdrawal of the rejection under 35 USC 103 (a) and allowance of claim 33 are requested.

5. Claims 40 -42:

Claims 40-42 further describe the features described in Claims 25 and 26, and found lacking in Gilhousen in view of Walley.

The Examiner has not pointed out nor can applicants find any support in Walley for the missing feature in Gilhousen.

The rejection of claim 40-42 under 35 USC 103 (a) based on Gilhousen in view of Walley is without support in the cited art.

In any case, claims 40-42 include the features of claim 34 relating to (a) the transmitter carrier frequency being varied among a plurality of predetermined carrier frequencies and b) a correlator value for each of the frequencies being used to find the attenuation loss of the communication channel. Gilhousen and Walley do not describe or suggest the claimed feature. Claim 40-42 are patentable on the same basis as claim 34

Withdrawal of the rejection under 35 USC 103 (a) and allowance of claim 40-42 are requested.

Paragraph 16:

Claims 43, 18 and 20 include features not disclose in Gilhousen in view of Walley and in further view of Dent, and the rejection under 35 USC 103 (a) is not supported in the cited art, as follows:

1. Claim 43:

Claim 43 follows and describes claim 25 in program product format and is patentable over Gilhousen, Walley and Dent on the same basis as claim 25.

2. Claim 18:

Claim 18 follows and describes claim 26 in program product format and is patentable on the same basis as claim 26

3. Claim 20:

Claim 20 follows and describes claim 28 in program product format and is patentable on the same basis as claim 28.

Withdrawal of the rejection under 35 USC 103 (a) and allowance of claims 43, 18 and 20 are requested.

Paragraph 17:

Applicants note the allowability of Claims 34 and 35. Applicants assume claims 36 – 39 which depend from claim 34 also represent allowable subject matter, after amendment to overcome objections and rejections.

Serial No.: October 12, 2005

Response to October 12, 2005 Office Action

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Docket No. RAL920010021US1 (1963-7418)

Paragraph 18:

Applicants have no objection to the statement of reason for the allowable subject matter.

CONCLUSION

Having amending the claims to overcome the objections and the rejections under 35 USC 112, First and Second Paragraphs; distinguished the claims from the cited art to overcome the rejections under 35 USC 103 (a), and noted the allowability of claims 34 and 35, applicants' request entry of the amendment, allowance of the claims and passage to issue of the case. Applicants' attorney further requests an Interview with the Examiner before the Examiner acts on the application for purposes of expediting the prosecution of the case.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to **Deposit Account No. 50-0563**, Order No. **RAL200010021US1 (1963-7418)**. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to **Deposit Account No. 50-0563**, Order No. **RAL200010021US1 (1963-7418)**. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,
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